

Appl. No. 10/032,235
Amdt. Dated Nov. 9, 2005
Reply to Office Action of 9/19/2005

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1. (Currently Amended) A hybrid FM radio system providing an audio output, comprising:

a transmitter section transmitting an audio transmission as a standard analog FM signal and a digital FM signal, wherein said digital FM signal is packetized and transmitted on a subcarrier band, and said analog FM signal transmitted on a main carrier band;

a receiver section for receiving said analog FM signal and said digital FM signal, wherein said digital FM signal is decoded and converted to an a digital decoded analog FM output and said analog FM signal is processed to provide a standard analog FM output, and wherein said standard analog FM output and said digital decoded analog FM output are synchronized; and

a means for automatically determining said audio output from said digital decoded analog FM output and said standard analog FM output.

Claim 2. (Original) The hybrid FM radio system according to claim 1, wherein said digital FM signal is directly derived from a digital source.

Claim 3. (Original) The hybrid FM radio system according to claim 1, wherein said digital FM signal is derived from said analog FM signal.

Claim 4. (Original) The hybrid FM radio system according to claim 3, further comprising an analog delay in said analog FM signal, wherein said analog delay is substantially equivalent to a cumulative time delay of processing said digital FM signal in said transmitter section and processing said digital FM signal in said receiver section.

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Claim 5. (Currently Amended) The hybrid FM radio system according to claim 1, wherein said means for determining is a multiplexer that switches between said standard analog FM signal output and said digital decoded analog FM signal output.

Claim 6. (Original) The hybrid FM radio system according to claim 1, wherein said digital FM signal is packetized in an MP3 format.

Claim 7. (Currently Amended) A hybrid FM radio system producing a quality audio output at the receiver, comprising:
a transmitter section transmitting an analog FM signal and a digital FM signal, wherein said digital FM signal is packetized and transmitted on a subcarrier band;
a receiver section for receiving said analog FM signal and said digital FM signal, wherein said digital FM signal is decoded and converted to an analog output;
a multiplexer connected to said analog FM signal and said digital FM signal, wherein said multiplexer switches in response to parameters selected from the group consisting of: a user input, a determination that said digital FM signal is a copy of said analog FM signal, a status determination that said digital FM signals is decoded without errors, and a synchronization determination that said digital FM signal is synchronized with said analog FM signal; and
wherein a multiplexer output generates said audio output.

Claim 8. (Currently Amended) The hybrid FM radio system according to claim 7, wherein said multiplexer automatically switches between said digital FM signal and said analog FM signal.

Claim 9. (Canceled)

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Claim 10. (Currently Amended) The hybrid FM radio system according to claim 9 7, further comprising an analog delay in said analog FM signal, wherein said analog delay is substantially equivalent to a cumulative time delay of processing said digital FM signal in said transmitter section and processing said digital FM signal in said receiver section.

Claim 11. (Currently Amended) The hybrid ~~digital~~ FM radio system according to claim 9 7, wherein said digital FM signal is packetized in an MP3 format.

Claim 12. (Currently Amended) A hybrid FM receiver capable of receiving an analog FM signal and a digital FM signal and producing an audio output, comprising:

an antenna for receiving said analog FM signal and said digital FM signal with a front end processing section and a FM demodulator;

an analog FM receiver section connected to said FM demodulator with a means for analog processing;

a digital FM receiver section connected to said FM demodulator with a receiver processor and a music processor, wherein said receiver processor performs receiver digital signal processing and wherein said music processor performs music digital signal processing; and

a multiplexer connected to said analog FM signal and said digital FM signal, wherein a multiplexer output generates said audio output.

Claim 13. (Original) The hybrid FM receiver according to claim 12, wherein said receiver processor includes a memory means for storing a receiver digital signal processing software.

Claim 14. (Original) The hybrid FM receiver according to claim 12, wherein said receiver processor is programmable and has an external interface for

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downloading a receiver digital signal processing software.

Claim 15. (Original) The hybrid FM receiver according to claim 14, wherein said receiver digital signal processing software is downloaded using a radio data system (RDS) format.

Claim 16. (Original) The hybrid FM receiver according to claim 12, wherein said music processor includes a memory means for storing a music compressor/decompressor (CODEC).

Claim 17. (Original) The hybrid FM receiver according to claim 16, wherein said music processor is programmable and has an external interface for downloading said music CODEC.

Claim 18. (Original) The hybrid FM receiver according to claim 12, further comprising an output switch for switching between said analog FM signal and said digital FM signal.

Claim 19. (Original) The hybrid FM receiver according to claim 12, further comprising a mixer for mixing said analog FM signal and said digital FM signal to produce said audio output.

Claim 20. (Original) The hybrid FM receiver according to claim 12, wherein said digital FM signal is packetized in an MP3 format.